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ABSTRACT

This paper reports on the use of a semistructured but open-ended format to gather students' perceptions about the activities and behaviors they experience in different tertiary learning environments and the reasons why they feel the way they do. Tertiary students were asked to write about events they liked, did not like, felt helped their learning, and felt hindered their learning in six learning environments: large group lectures, small group lectures, seminars/tutorials, one-to-one teaching, practical settings on campus, and practical settings off campus. Subjects included 1,249 students at the Queensland University of Technology in Australia. Findings indicated that students like it when practical application or experiential learning occurs, presentations by the lecturer are clear, discussion of content occurs, class size is appropriate, and the classroom is personalized. Students do not like it when pacing of presentations is not appropriate, presentations are unclear, there is no variety in classroom presentation or activities, the class is not disciplined by the lecturer, and the content and discussion are not structured by the lecturer. There were strong links between what students like and what they claim helps them learn, and vice versa. Appendices contain the questionnaire format and a categorization of statements and reasons. (Contains 17 references.) (JDD)

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TERTIARY STUDENTS' PERCEPTIONS OF IMPORTANT EVENTS THAT OCCUR IN THEIR LEARNING ENVIRONMENTS[1]

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Introduction

How students perceive their learning environments is accepted as having a significant influence on the quality of the students' learning outcomes (e.g. Doyle, 1977; Fraser, 1989; Walberg, 1971). Over the past quarter century, an extensive empirical base on student perceptions of their learning environments has been developed at the elementary and secondary school level (Fraser, 1989) and to a lesser extent at the post-secondary level (Fraser and Tregaust, 1986; Marsh, 1981; Stevenson 1990).

The bulk of this research has been based on students responding to a set of predetermined items usually using some form of Likert scale. For example, at the elementary level the My Class Inventory (MCI) (Anderson, Walberg and Fraser, 1981), at the secondary level, the Classroom Environment Scale (CES) (Moos and Trickett, 1974), the Learning Environment Inventory (LEI) (Anderson *et al*, 1981) and the Individualized Classroom Environment Questionnaire (ICEQ) (Rentoul and Fraser, 1979) and at the tertiary level the College and University Classroom Environment Inventory (CUCEI) (Fraser and Tregaust, 1986), the Students' Evaluation of Educational Quality (SEEQ) (Marsh, 1981) and the Cognitive

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Holding Power Questionnaire (CHPQ) (Stevenson, 1990). The validity and reliability of these scales have been well established by the developers (Anderson *et al*, 1981; Fraser and Tregaust, 1986; Marsh, 1981; Moos and Trickett, 1974; Rentoul and Fraser, 1979; Stevenson, 1990) and others e.g. the CUCEI (Clarke, 1990) and the CHPQ (Clarke, 1991).

Although all of these instruments are psychometrically sound, they have a number of potential limitations. First, there is always a concern that any *a priori* set of statements to which individuals respond on a forced-choice format does not necessarily allow the students to indicate what is salient to them. Second, the instruments focus on either just one type of learning environment (e.g. CUCEI is designed to be used with seminar groups up to 25) or the "generic classroom" (e.g. MCI, LEI, ICEQ). Third, each is based on a relatively small number of underlying dimensions manifested as subscales. And fourth, the instruments do not investigate why students perceive their classrooms the way they do.

This paper reports on the use of a semi-structured but open-ended format to gather student perceptions not only about the activities and behaviours they experience in different tertiary learning environments but also to tap into the reasons why they feel the way they do. The semi-structured open-ended approach combined with the focus on perceptions and reasons seek to address the limitations of existing instruments outlined above.

The Data Collection Instrument

The focus in this study is on tertiary students. Therefore, six learning environments were identified as being appropriate for that level of education:

LARGE GROUP LECTURES where there are more than 50 students;[3]

SMALL GROUP LECTURES where there are between 25 and 50 students;

SEMINARS/TUTORIALS where there are less than 25 students;

ONE-TO-ONE TEACHING, just student and lecturer/tutor;

PRACTICAL SETTINGS ON CAMPUS such as laboratories, gymnasia etc.

PRACTICAL SETTINGS OFF CAMPUS such as work environments, schools, hospitals etc.

For any given learning environment that the students chose, they were given the opportunity to write about events that

(a) they liked

(b) they did not like

(c) they felt helped their learning

(d) they felt hindered their learning

In each case, they were also asked to indicate why.

The introduction and the questionnaire format for the "like" section is shown below along with a sample response. The formats for the "dislike", "help" and "hinder" sections are very similar and are shown in Appendix 1. The students were supplied with at least 10 blank proformas of the type shown in the sample response for <u>each</u> section.

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3 Numbers suggested here are approximate.

YOUR PERCEPTIONS OF YOUR LEARNING ENVIRONMENTS

This questionnaire focuses on how events in learning environments influence your learning. You are asked about events which you like, which you don't like, which help you in your learning and which hinder you in your learning.

You may experience a variety of learning environments. These could include:

LARGE GROUP LECTURES where there are more than 50* students;
SMALL GROUP LECTURES where there are between 25 and 50 students;
SEMINARS/TUTORIALS where there are less than 25 students;
ONE-TO-ONE TEACHING, just student and lecturer/tutor;
PRACTICAL SETTINGS ON CAMPUS such as laboratories, gymnasia etc.
PRACTICAL SETTINGS OFF CAMPUS such as work environments, schools, hospitals etc.

* Numbers are approximate

EVENTS YOU LIKE (DISLIKE)

For the subject you are now in, think about learning environments you have been in which you felt were pleasant (unpleasant) places to be. In your own words, please indicate what made the environments pleasant (unpleasant) and why. Give as many examples as you can from the different learning environments listed above.

An example of how you may respond is:

In _____ *Seminars* _____

I like it when *the lecturer/tutor tries to get to know our names*

because *it makes for a more relaxed learning environment*

Sample

1249 students from 10 Schools in 5 Faculties at the Queensland University of Technology (QUT) in Brisbane Australia completed the questionnaire. The data were collected as part of the Teaching and Learning in Tertiary Education (T&LiTE) Project (Clarke and Taylor, 1993). That Project had as its major aim, the gathering of information from students and their lecturers about learning and teaching in their classrooms and the collaborative use of that information by lecturers and members of the Project team to inform possible changes in lecturers behaviour aimed at improving student learning.

In the sample, 746 (59.7%) were female and 439 (35.2%) were male while 64 (5.1%) did not indicate gender. The average age of the sample was 23.3 years. The distribution of students by course and year of course is shown in Table 1.

Table 1 somewhere here

The data were collected along with all of the other T&LiTE Project questionnaire data by two experienced Research Assistants in August and September 1992 using standardised administration procedures. This was at least 4 weeks into the teaching semester so that the perceptions of the students could be regarded with some confidence as having had an adequate time to stabilise.

Analysis

Categorisation of the Raw Data

The writer and the two Research Assistants collaboratively categorised the "statements" and

the "reasons" of 100 randomly selected students. The "statement" and "reason" responses were classified separately producing 55 categories of "statements" and 47 categories of "reasons". These categories were used by the Research Assistants to classify the remaining data with random "quality control" checks made by the writer. Fortuitously, the categories almost always had positive and negative dimensions e.g. "feedback" was either "provided" or "not provided". Each category of "statement" or "reason" therefore has a positive and negative pole. Sample responses for each category are shown in Appendix 2.

Overall Results

The five most frequently occurring statement responses in each of the like, dislike, help, and hinder sections for the whole sample are shown in Table 2.[4]

Table 2 somewhere here

The reasons and their frequencies of occurrence associated with each of these statements are shown in Tables 3 to 6.[5]

Tables 3 to 6 somewhere here

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4 Note that in Table 2, the sum of the frequencies of the five most frequently occurring categories is less than the "Total Comments" frequency as the latter includes the frequencies of all categories.

5 Note that the "Total No of Reasons" frequencies associated with a given statement in Tables 3 to 6 do not match the statement frequency in Table 2 because students often gave more than one reason as to why the liked, disliked etc. a particular behaviour or activity.

Discussion

Some General Comments:

It is important to understand the nature of this data. The written comments vary in length and complexity. Although aggregation does give some general ideas about what the students are saying, it has to be appreciated that, in aggregating this kind of qualitative data, the richness and uniqueness of the individual comments is lost. However, to present this data in a meaningful but succinct way, some aggregation of data has to occur. There have been two levels of aggregation. When the data was fed back to individual lecturers, aggregation based on the categories identified above was used to provide the individual lecturers with a summary of the comments of their students. What is presented here is a further aggregation to the level of the whole sample of students. At this higher level, the data can only provide at best a general overview of student perceptions.

In terms of the number of comments made, whether they be statements or reasons, the "positive" comments ("likes", "helps learning") outnumber the "negative" comments ("dislikes", "hinder learning") almost 2:1. It is difficult to know whether that is a satisfactory ratio or not for at least two reasons: First, there is no similar data available that can be used as a comparison and second, any criterion used as a baseline is a value-judgement anyway. What is probably an acceptable value-judgement however is that at least the ratio is not 1:1 or 1:2.

As might well be logically expected because of the focus here on learning environments, there are strong links between what students say they like and what they claim helps them learn on the one hand and what they don't like and what they believe hinders their learning on the

other. In other words, there is a high correlation between the affective ("like/dislike") and the more, but not exclusively, cognitive ("help/hinder learning") dimensions of classroom life.

Some specific comments:

Students like it and also believe it helps their learning when they are exposed to practical applications and/or learn by experience, when material is clearly presented and when discussion occurs. They also like it when the size of the class is appropriate for the activity being undertaken and the classroom is personalised and claim that their learning is facilitated by a lecturer who asks questions and generally supports their learning. The reasons why students like these activities and behaviours and believe that they help in their learning are that the activities and behaviours satisfy their learning needs by increasing their understanding, increasing the amount they learn and making their learning easier. Students also like things that increase their interest and promote an informal and personal learning environment. Further, they believe that their learning is enhanced by activities which promote consolidation and integration of knowledge and provide a variety of views.

Students don't like it and believe that their learning is hindered when the pace, structure and clarity of presentation is poor, when there is lack of variety in classroom presentation and when disruptive students or activities are not controlled by the lecturer. Further, students don't like unstructured discussion and feel that their learning is interfered with when the size of the class is not appropriate for the activity being undertaken. The reasons why students don't like these activities and behaviours and believe that they hinder their learning are that the activities and behaviours do not satisfy their learning needs because their understanding and the amount they learn is decreased while learning is made more difficult. Students also

don't like to have their time wasted and believe that their learning is hindered by uninteresting and unvaried activities.

In the context of contemporary views of effective teaching and learning (e.g. Biggs, 1989, 1990; Dart and Clarke, 1991; Ramsden, 1988), these perceptions are a cause for concern. The students' view of effectiveness is associated with effective *transmission* of information. Students see themselves as passive recipients of well structured and presented material; nowhere in their perceptions do the notions of the development of understanding, the promotion of autonomy and student control over their learning occur. However, the findings do confirm two significant things: students believe they are capable of making judgements about what is good and poor teaching and how both can influence their learning; and second, they claim that they experience both at QUT.

Conclusions and Future Developments

There are two major concerns arising out of this data:

First, the prevalence of the perceptions of poor teaching, even given the 2:1 ratio of favourable to adverse comments, has implications for those in Universities responsible for monitoring and improving teaching. Second, and of major concern is the limited and traditional view students have of effective teaching. The challenge is there for lecturers to revamp their approaches to teaching to allow, indeed to require, students to take more responsibility for their learning and construct their own understandings. For this to happen however, lecturers themselves need to become aware of the importance of this constructivist approach and develop the skills, beliefs and most importantly the confidence to teach in this way. This process of professional development is the ongoing outcome of the T&LiTE

Project (Taylor, 1994).

The data collection and analysis procedure discussed here seems to have the capability of providing lecturers with comprehensive qualitative feedback relatively simply. This has been done in the T&LiTE Project (Clarke and Taylor, 1993).

Further analysis of the data based on Faculty and year of course will provide additional information about the perceptions and motivations of different sub-groups of students. Also, the potential is there for the categories to be further aggregated into broad dimensions which, along with specific comments made by students, could form the basis of a more comprehensive set of quantitative scales than is currently available.

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APPENDIX 1: Questionnaire Formats for "Dislike", "Help" and "Hinder" Sections of the questionnaire

Learning Environments

LARGE GROUP LECTURES where there are more than 50* students;
SMALL GROUP LECTURES where there are between 25 and 50 students;
SEMINARS/TUTORIALS where there are less than 25 students;
ONE-TO-ONE TEACHING, just student and lecturer/tutor;
PRACTICAL SETTINGS ON CAMPUS such as laboratories, gymnasia etc.
PRACTICAL SETTINGS OFF CAMPUS such as work environments, schools, hospitals etc.

* Numbers are approximate

"Dislike"

EVENTS YOU DISLIKE

For the subject you are now in, think about learning environments you have been in which you felt were **unpleasant** places to be. In your own words, please indicate what made the environments unpleasant and why. Give as many examples as you can from the different learning environments listed above.

"Help Learning"

EVENTS THAT HELP YOU LEARN

For the subject you are now in, think about the behaviours and activities of lecturers/tutors and students which you feel have **helped** you learn. In your own words, please describe these behaviours and activities and also indicate why they helped you learn. Give as many examples as you can from the different learning environments listed above.

"Hinder Learning"

EVENTS THAT HINDERED YOUR LEARNING

For the subject you are now in, think about the behaviours and activities of lecturers/tutors and students which you feel have **hindered** your learning. In your own words, please describe these behaviours and activities and also indicate why they hindered your learning. Give as many examples as you can from the different learning environments listed above.

Appendix 2 Examples of Statements and Reasons Categories

No.	Statement	Positive Pole (+)	Negative Pole (-)
1	There is an appropriate amount of information.	**Appropriate** "A reasonable amount of information is covered."	**Inappropriate** "I am deluged with information." "Lectures are forced to cover large bodies of information in a relatively short time."
2	Availability of lecturer.	**Available** "The tutor is readily available to answer my questions." "The lecturer makes himself available for consultation."	**Unavailable** "The teacher does not appear to make him/herself available (after lectures) for consultation."
3	Availability of resources/ equipment.	**Available** "The lecturer places lecture material in the limited access collection."	**Unavailable** "There is not enough equipment/material for each student."
4	Lecturer's awareness of students' knowledge base/needs.	**Aware** "They speak in layman's terms, assuming the knowledge of the subject is limited." "The lecturer tries to understand my learning needs."	**Unaware** "Lecturers assume you know things." "The lecturer sets us certain goals too early."
5	Clarity of the presentation by the lecturer.	**Clear** "Things are explained well." "The tutor explains step by step how to do things."	**Unclear** "The tutor does not explain things clearly."
6	Equity of treatment of students by lecturer.	**Equitable** "The tutor speaks to everyone, not just one person (student)."	**Favourites** "I feel I am not responded to adequately because I am female. Preference is given to a male response." "The lecturer continuously voices his/her disapproval towards young students studying this course."

No.	Statement	Positive Pole (+)	Negative Pole (-)
7	Disciplining of class by lecturer.	**Disciplined** "The lecturer can keep control of the lecture by making it more interesting."	**Not Disciplined** "Other students talk all the time and lecturers do not stop them."
8	Discussion of course content among students.	**Occurs** "We are encouraged to work with other students on problems."	**Does not Occur** "The student giving the seminar just reads the information."
9	Discussion of course content between lecturer and students.	**Occurs** "The tutor encourages active student participation in discussion." "There is discussion amongst students and the lecturer."	**Does not Occur** "The lecturers don't include the students."
10	General discussion of course content (participants unspecified).	**Occurs** "The lecturer encourages group discussion."	**Does not Occur** "Discussion isn't generated, or when it is very limited, one-sided, shallow, or not really cared for."
11	Enthusiasm of the lecturer.	**Enthusiastic** "The lecturer is really excited about teaching the subject."	**Not Enthusiastic** "The lecturer drones on without enthusiasm."
12	Equity of status between lecturer and students.	**Equity** "The teacher does not appear as an authority figure." "The teacher treats me as an equal and not inferior."	**Lecturer Superior** "We have lecturers who are patronising." "Lecturers feel they are superior to their students."
13	Domination of classroom by some students.	**No Domination** "In a group we work cooperatively and in a motivated way." "Everyone has a chance to voice their opinion."	**Some Dominate** "Other students dominate the discussion." "A student dominates the group and controls the lecturer's attention."
14	The class has a break.	**Break** "We have a ten minute break." "We are given breaks on the hour."	**No Break** "The lecturer goes straight through without a break for more than 1.5 hours."

No.	Statement	Positive Pole (+)	Negative Pole (-)
15	The lecturer is humorous/ entertaining.	Humour "The lecturer uses humorous anecdotes throughout the lecture." "The lecturer provides us with some comic relief."	No Humour "The lecturer is dry and boring."
16	Provision of feedback by lecturer on assessment.	Feedback "Feedbacks is given on assignments."	No Feedback "Feedback is not given on assignments." "The tutor fails to make an attempt to explain their marking technique."
17	Provision of feedback by lecturer to class.	Feedback "Our tutor gives us plenty of positive feedback."	No/Negative Feedback "There is no feedback."
18	Informal atmosphere in classroom.	Informal "We feel comfortable with each other." "The environment is less formal."	Formal "The atmosphere is restricting."
19	Students are able to provide input into assessment.	Input "The tutor asks our opinions on assessment." "You are able to negotiate marks through contract learning."	No Input "The assignments are not negotiated."
20	Students are able to provide input into course content.	Input "The class is involved in the way the course goes." "Students are able to design the content of lectures."	No Input "The area for discussion is restricted and mapped out." "The tutor assumes too much control of the learning session."
21	Effect on learning strategies of students.	Helped "I am able to actively involve myself in problem solving."	Hindered -
22	Openness, friendliness, and approachability of lecturer.	Open "The teacher appears to have a relaxed, friendly personality."	Not Open "The tutor is unapproachable."

No.	Statement	Positive Pole (+)	Negative Pole (-)
23	Organization of space in the classroom.	Organized Well "Desks, chairs are arranged in an informal way, e.g. in a circle rather than rows."	Not Well Organized "The room is set up always in rows."
24	Outgoing behaviour of lecturer.	Outgoing "The lecturer has an outgoing personality."	Not Outgoing "The tutor is stand-offish."
25	Pacing of presentation by lecturer.	Appropriate "The lecturer spends time focusing on a topic." "The lecturer speaks at a relaxed pace."	Not Appropriate "The lecturer rushes through information and subject matter."
26	Provision of personal support by lecturer.	Support "The lecturer takes a personal interest in me."	No Support "I know what I want to achieve but do not have sufficient instruction."
27	Personalized classroom.	Personalized "We're introduced to each other."	Not Personalized "The tutor after eight weeks has not bothered to learn our names."
28	Students feel physically comfortable.	Comfortable "The room is not completely full." "I can see and hear at all times."	Not Comfortable "The rooms are too warm." "We are in a freezing room with a wall of glass and wind blowing outside."
29	Practical application/ experiential learning occurs.	Practical Learning "Practical everyday examples are given to support a point." "The tutor brings the content into everyday practical examples."	No Practical Learning "The lecturer doesn't give us very much time on the computers."
30	Quality of audio visual resources.	Good Quality "Overheads are clear, logical, and understandable."	Poor Quality "Lectures use old, faded, poorly outlines OHT's."
31	Students are able to ask questions.	Questions "Other student ask questions." "The lecturer encourages students to ask questions during the course of the lecture."	No Questions "You cannot ask questions."

No.	Statement	Positive Pole (+)	Negative Pole (-)
32	The lecturer asks the class questions.	**Questions** *"The lecturer asks probing questions."*	**No Questions** *"The tutor does not ask you the questions."*
33	Rapport of lecturer with class.	**Rapport** *"I am able to develop a good working relationship with the lecturer."* *"The lecturer has a pleasant rapport with the students."*	**No Rapport** *"The lecturer seems to lack any rapport with students."*
34	Relevance of the content/experience.	**Relevant** *"You see it how it really is."* *"There is new and relevant information."*	**Not Relevant** *"The problems are not related to the specific task at hand."*
35	Repetition of information by lecturer.	**Repetition** *"The lecturer repeats an important fact more than once."*	**No Repetition** *"Difficult practical points are covered only once."*
36	Review of material by lecturer.	**Review** *"The lecturer discussed previous weeks theory questions."*	**No Review** -
37	Students' feelings towards the setting of out-of-class work by lecturer.	**Liked** *"Reasonable study exercises are given."* *"A task is given to complete for the next week."*	**Disliked** *"All other tutorials do their homework in their tutorials and we are forced to do other work."*
38	Size of class.	**Appropriate Size** *"It is only a small group, preferably under 15."*	**Inappropriate Size** *"A group has over 15 members."* *"There are too many people, over 80 or 90."*
39	Occurrence of small group activities.	**Small Groups** *"The lecturer/tutor asks us to form a group of six or so and discuss something."*	**No Small Groups** *"There is insufficient time for group work."*

No.	Statement	Positive Pole (+)	Negative Pole (-)
40	Structuring of content/discussion by lecturer.	**Structured** *"The subject is structured and organized."* *"Lecturers have material either themed or chronologically ordered."*	**Not Structured** *"The lecturer rambles on."* -
41	Support from peers.	**Support** *"Students collaborate and provide a positive learning environment."*	**No Support** *"People do not share their resources (information, articles, books, contacts, etc.)."* *"Cliques form among members."*
42	Students' feelings towards the type of assessment/ assessment load.	**Liked** *"Students are not bombarded (given too many assignments)."* *"We get assessed on a satisfactory/ unsatisfactory basis."*	**Disliked** *"We have to answer large amounts of multiple choice questions."*
43	Use of audio-visual resources.	**Used** *"We see slides of the art work we are talking about."*	**Not used** *"The lecturer does not provide audio-visual aids."*
44	Use of a variety of human resources.	**Variety** *"We have a guest lecturer from the industry."*	**No Variety** -
45	Perceived use of time in class.	**Used Well** *"The lecturer stays on track of the subject."* *"There is time for everyone to express an opinion if they so desire."*	**Misused** *"We waste too much time with chit chat or with issues not relevant to the course."* *"We use valuable lecture time to fill in research questionnaires."*
46	Use of a variety of classroom/ presentation activities.	**Variety** *"Things are explained in different ways and with different mediums (visual, oral, etc.)"* *"The tutor gives us a variety of learning methods in the one evening."*	**No Variety** *"The lecturer speaks continuously for the full lecture, reading from notes."*

No.	Statement	Positive Pole (+)	Negative Pole (-)
47	Use of a variety of learning environments.	**Variety** "Classes are taught outside the university setting, e.g. in grounds outside the building." "We go out of the classroom to do simple field studies."	**No Variety** "Organizations don't want to help uni students." "We are taught skills on campus."
48	Lecturer's expertise in content area.	**Expertise** "The lecturer knows what he is talking about."	**No Expertise** "The tutor appears to not know their work." "The tutor is not specifically trained in this subject."
49	Students' feelings of locus of control.	**Internal** "I have to research for myself."	**External** "Lecturers are very hard markers and fail huge numbers of people."
50	Students' feelings/ characteristics.	**Positive** "I am involved in (work)situations where I can apply the theory in reality." "I can go home."	**Negative** "Most of the students have experience with computers (but I don't)." "I do not pay full attention to the major concepts/ information presented."
51	Lecturer's support of students' learning.	**Support** "Lecturers give out comprehensive handouts." "The lecturer gives us ideas to think about later."	**No Support** "An overview of the semester, lecture topics, assessment etc. is not given." "The lecturer uses OHT's but does not leave them up long enough and doesn't state the information is in the book."
52	Students' interest in/like for content of lecture.	**Interest** "We listen to something that is interesting."	**No Interest** "The lecture is long, drawn out, and boring."
53	Students' personal involvement in their learning.	**Involved** "I have to discover information for myself." "I feel that I will gain what I want to in the way of learning."	**Not Involved** -

No.	Statement	Positive Pole (+)	Negative Pole (-)
54	Personal qualities of lecturer.	**Liked** "The lecturer seems totally genuine."	**Disliked** "The lecturer is a racist." "The lecturer is impatient."
55	Consistency of lecturer(s) in course.	**One Lecturer** -	**Lecturers Change** "The lecturers take it in turns to give the different topics."

Positive and negative examples of the reason categories.

No.	Reason	Positive Pole (+)	Negative Pole (-)
1	Access to the lecturer's perspectives/ viewpoints.	**Access** "I benefit from a different frame of reference from an 'authority figure' in relation to my studies." "The tutor answers the questions better."	**No Access** "A lot of lecturer information gets missed."
2	Access to students' perspectives/ viewpoints.	**Access** "I like working with people because you get more ideas." "It allows maximum student input." "It allows us as students to voice our opinions/ questions on the subject."	**No Access** "Students are not given the opportunity to provide opinions."
3	Access to a variety of perspectives/ viewpoints.	**Access** "It allows students to hear other peoples' views and opinions on the subject."	**No Access** "It does not allow the expansion of one's ideas by other peoples' thoughts."
4	Effect on anxiety/stress/ embarrassment.	**Decreased** "It puts students at ease." "This eases the stress of new experiences and reduces some of the fears."	**Increased** "Sometimes you're made to feel less than smart."

No.	Reason	Positive Pole (+)	Negative Pole (-)
5	Lecture is aware of students' knowledge/ needs.	Aware *"I know she is understanding on the newness of tertiary study to me."*	Unaware *"I have had some of this work before and it is boring to do it again."* *"I feel they are less likely to know my ability (or lack of)."*
6	Effect on clarification/ understanding of learning.	Increased *"I feel it is important to clarify things I am uncertain of."* *"It gives me the chance to have particular misunderstandings clarified."*	Decreased *"It is difficult to grasp the concept."* *"It does not help me clear up a particular issue or idea."* *"I find it hard to understand- not knowing why and where certain things are obtained."* *"It is confusing."*
7	Effect on concentration.	Increased *"My attention remains focussed."*	Decreased *"I find it hard to concentrate on the lecture."*
8	Effect on consolidation/ integration of learning.	Increased *"It is easier to see the connections in the material."* *"I can easily associate the new work with existing studies."* *"It enables me to relate theory to practice."*	Decreased *"It makes it difficult to assimilate the subject of the lecture."*
9	Effect on desire to learn/ motivation.	Increased *"It makes you glad you're doing the subject. It gives you that little bit more incentive."*	Decreased *"You start asking yourself- why bother."*
10	Effect on enjoyment of learning.	Increased *"This makes it a pleasure being here."*	Decreased *"You dread the thought of coming to the next tutorial."*

No.	Reason	Positive Pole (+)	Negative Pole (-)
11	Provision of feedback.	Provided *"You input your ideas and can get feedback on them."*	Not Provided *"I can't determine whether my idea could be justified."* *"The tutor fails to make an attempt to explain their marking technique."*
12	Effect on frustration.	Decreased *"People don't get frustrated."*	Increased *"I become frustrated."*
13	Provision of guidance/ direction/ support by lecturer.	Guidance *"You know they are there to help if you need it."* *"It shows his concern for us and his willingness to help."*	No Guidance *"This makes me feel alone and unguided."* *"I feel so lost without guidelines and don't really know what is expected of me."*
14	Opportunity for individualized learning.	Increased *"It enables us to set our own learning framework."*	Decreased *"It stifles the individual learning experience.""It makes the tutor's job impossible to give everyone the help they need."*
15	Effect on the amount/ ease of learning.	Increased *"It facilitates my learning."* *"It broadens my knowledge base further."* *"It makes learning much easier."*	Decreased *"You have gained nothing out of the lecture."*
16	Effect on the amount of interaction/ participation.	Increased *"Students will talk and communicate better with the tutor."*	Decreased *"It discourages the students from participating."* *"There is little chance to be actively involved."*
17	Effect on the provision of peer support.	Increased *"It creates a supportive network between students."*	Decreased *"People are left out and made to feel not wanted."*

No.	Reason	Positive Pole (+)	Negative Pole (-)
18	Promotion of an informal/ personal atmosphere.	Promoted *"It creates a friendly class atmosphere."* *"It makes for a more relaxing learning atmosphere."*	Not Promoted *"It makes it a tense environment for people who are trying to copy (OHT's) down."*
19	Effect on interest in learning.	Increased *"It makes it more likely that I will retain interest."*	Decreased *"I lose interest."*
20	Effect on learning by experience/ practical application.	Increased *"We find out how to use a program through trial and error."*	Decreased *"It doesn't make it practical for me, therefore isn't remembered and utilized."*
21	Effect on students' personal involvement in their learning.	Increased *"This enables students to become more involved in the learning experience."* *"This enhances the involvement in the content of the course material."*	Decreased *"You feel apart from the lecture."* *"It gives me no scope to use my initiative."* *"There is no personal involvement."*
22	Effect on personal organization of learning.	Increased *"It helps me to discipline myself and start some work."*	Decreased *"You can't organize your time with other things to maximize efficiency."*
23	Effect on students' physical comfort.	Increased *"We feel fresh."*	Decreased *"It is difficult to get comfortable both physically and emotionally."* *"There is no room to move."*
24	Equality of student-student relationships.	Equal -	Unequal *"Some students tend to dominate the whole time."*

No.	Reason	Positive Pole (+)	Negative Pole (-)
25	Students' preferred ways of learning.	Supported *"I think I learn better that way."* *"I find it the best way to learn."*	Not supported *"It blocked my process of questioning and teasing issues out, so that I could learn more effectively."*
26	Effect on students' preparation for assessment.	Assisted *"It specifies the need to do additional reading."* *"Students need this time in order to complete their diary log book."*	Hindered *"We do not have enough time to gain knowledge before an assignment is due to be handed in."*
27	Effect on rapport of lecturer with the class.	Increased *"You like the lecturer and sense they think you're okay."*	Decreased *"She's not funny and she has a sick sarcastic sense of humor."*
28	Effect on relevance of material.	Increased *"It gives a dimension of relevance to the subject that may otherwise be lost or overlooked."*	Decreased *"Sometimes it is difficult to see the relevance of theory."*
29	Satisfaction of students' learning needs.	Increased *"It maximizes my learning needs."* *"It allows the course to fulfill our needs, not just an academic standard."*	Decreased *"You can't get the information down."* *"The majority of students are not getting their needs met."*
30	Satisfaction of students' personal needs.	Increased *"It encourages social skills."* *"Networks are important both at uni and in the real world."* *"It helps you to look at your own feelings, thoughts, and values on the subject."*	Decreased *"There is always plenty of other things we could be doing including academic work and social."*

No.	Reason	Positive Pole (+)	Negative Pole (-)
31	Effect on students' control of their learning/ assessment.	Increased *"It means you can experiment and learn yourself."* *"It gives us the responsibility for our own learning."*	Decreased *"It's disempowering."* *"I feel very restricted and can't give my best."*
32	Effect on task orientation.	Increased *"It can help me feel clearer and committed to my own ideas."* *"It makes association and commitment to learning more effective."* *"It makes it easier to establish a study pattern."*	Decreased *"You get used to how a lecturer lectures, and it is hard to change patterns mid-subject."*
33	Promotion of thinking.	Promoted *"It helps me think in an intelligent way."* *"It stimulates us to think and formulate an opinion."*	Restricted *"There are no thought processes involved."*
34	Treatment as a person/ individual.	Increased *"It makes me feel like an individual."*	Decreased *"I feel like they are speaking to a herd of cattle."* *"This makes me feel insignificant."*
35	Use of time in class.	Appropriate *"Time is not wasted, and important work is not overlooked because of lack of time."*	Wasteful *"It wastes valuable time."*
36	Variety of learning opportunities.	Increased *"It gives a bit of variety."* *"It is a good contrast to the teaching style of lectures- variety is the spice of life."*	Decreased -

No.	Reason	Positive Pole (+)	Negative Pole (-)
37	Effect on discipline in class.	Increased *"People pay more attention and don't make as many distractions."*	Decreased *"The lecturers, no matter how good they are, can never seem to control everyone."*
38	Effect on students' confidence in their own ability.	Increased *"It boosts my confidence."* *"It enables you to be more confident about areas you may be having problems with."*	Decreased *"Confidence can be lost if others are side tracked."* *"You don't feel you don't know or count for much."*
39	The lecturer is open/ friendly/ approachable.	Yes *"I know I can approach her if I don't understand something."* *"I find it easier to approach them when I have a problem."*	No *"It makes her seem very unapproachable."*
40	Students are able to ask questions.	Questions *"Students are less afraid to ask a simple question."*	No Questions *"Unavailability to ask questions."*
41	Equality of lecturer-student relationship	Equal *"It gives people an equal right to voice."* *"The lack of friction and dominance allows for an effective learning environment."*	Unequal *"It is intimidating."*
42	Availability of resources / equipment.	Available *"There is adequate equipment and available resources."*	Not Available -
43	Effect on assessment load.	Suitable *"It allows for students to share the workload."* *"I am not doing unnecessary research."*	Too Heavy *"We already have a heavy workload."*

No.	Reason	Positive Pole (+)	Negative Pole (-)
45	Perceived fairness in grading of assessment.	Fair *"I believe she is fair and open to changing any requirements that are unreasonable or unfair."*	Unfair *"I receive a grade that I believe is less than what I deserve or what other tutors are giving for the same work."*
46	Lecturer's expertise in content area/ presentation.	Expertise -	No Expertise *"I feel that the lecturer is not always right."*
47	Lecturer's interest in students and/or their learning.	Interest *"We have the feeling that the tutor is concerned about us."*	No Interest *"It shows the teacher's lack of genuine interest in the students' understanding of a topic."*

Year						
Course	**1**	**2**	**3**	**4**	**5**	**Total**
Bachelor of Social Science		65	42			107 9.1%
Bachelor of Business	362	257	136	10	2	767 64.9%
Bachelor of Nursing	22	6	36			64 5.4%
Bachelor of Education	78	48	45	1		172 14.6%
Master of Computer Science	1					1 .1%
Master of Applied Science	4	3				7 .6%
Bachelor of Arts		1	1			2 .2%
Bachelor of Business/Law	35					35 3.0%
Graduate Diploma in Business	12	3	1			16 1.4%
Master of Business Administration.				1		2 .2%
Graduate Diploma in Commercial Computing	3	1				4 .3%
Bachelor of Applied Science		2	1			3 .3%
Totals	517 43.8%	387 32.8%	262 22.2%	12 1.0%	1 .3%	1180 (94.5%)
No information						69 5.5%
					Total	1249 (100%)

Table 1 Student sample (Course x Year)

Rank Order	Cat No	Description of Category	N of comments	% of comments	
		STUDENTS LIKE IT WHEN... Total Comments: 2198			
1	29	Practical application/experiential learning occurs	551	25%	(*)
2	5	Presentation/explanation by the lecturer is clear	339	15%	
3	10	Discussion of content occurs (participants unspecified)	307	14%	
4	38	Class size is appropriate	209	10%	
5	27	The classroom is personalized	142	6%	
		STUDENTS DON'T LIKE IT WHEN... Total Comments: 1430			
1	-25	Pacing of presentation by lecturer is not appropriate	329	23%	
2	-5	Presentation/explanation by the lecturer is unclear	211	15%	
3	-46	There is no variety in classroom presentation/activities	149	10%	
4	-7	Class is not disciplined by the lecturer	100	7%	
5	-40	Content/discussion is not structured by the lecturer	90	6%	
		LEARNING IS HELPED WHEN... Total Comments: 1630			
1	29	Practical application/experiential learning occurs	511	31%	
2	5	Presentation/explanation by the lecturer is clear	341	21%	
3	51	The lecturer supports students' learning	162	10%	
4	32	The lecturer asks the class questions	118	7%	
5	10	Discussion of content occurs (participants unspecified)	113	7%	
		LEARNING IS HINDERED WHEN... Total Comments: 1104			
1	-7	Class is not disciplined by the lecturer	352	32%	
2	-25	Pacing of presentation by lecturer is not appropriate	223	20%	
3	-5	Presentation/explanation by the lecturer is unclear	108	10%	
4	-38	Class size is not appropriate	52	5%	
5	-46	There is no variety in classroom presentation/activities	35	3%	

(*) This data is to interpreted as follows:

2198 statements were made about what students liked. 551 Of these statements or approximately 25% of the total of 2198, were about practical application and/or experiential learning

Table 2: Summary of Students' Statements about their Learning Environments

Cat No	Statement and Associated Reasons	No of comments	% of comments
	I like it when...		
S29	Practical application/experiential learning occurs		
	because...		
R6	It increases clarification/understanding	145	25%
R8	It increases consolidation/integration	88	15%
R28	It increases relevance	61	11%
R15	It increases the amount/ease of learning	59	10%
	Total No of Reasons:	576	
	I like it when...		
S5	Presentation/explanation by the lecturer is clear		
	because...		
R6	It increases clarification/understanding	152	37%
R15	It increases the amount/ease of learning	51	13%
R29	Learning needs are satisfied	43	11%
	Total No of Reasons:	407	
	I like it when...		
S10	Discussion of content occurs (participants unspecified)		
	because...		
R3	There is access to a variety of perspectives/viewpoints	89	25%
R6	It increases clarification/understanding	61	17%
R15	It increases the amount/ease of learning	32	9%
	Total No of Reasons:	361	
	I like it when...		
S38	Class size is appropriate		
	because...		
R18	It promotes an informal/personal atmosphere	32	13%
R14	It increases individualized learning	31	12%
R15	It increases the amount/ease of learning	27	11%
	Total No of Reasons:	251	
	I like it when...		
S27	The classroom is personalized		
	because...		
R18	It promotes an informal/personal atmosphere	55	23%
R34	It increases treatment as a person/individual	34	14%
R4	It decreases anxiety/stress/embarassment	21	9%
	Total No of Reasons:	241	

Table 3 "Like" Statements and Associated Reasons

Sxx : Positive Pole of Statement Category xx
Rxx : Positive Pole of Reason Category xx

Cat No	Statement and Associated Reasons	No of comments	% of comments
	I dislike it when...		
(S25)	Pacing of presentation by lecturer is not appropriate		
	because...		
(R29)	Learning needs are not satisfied	103	29%
(R6)	It decreases clarification/understanding	101	28%
(R15)	It decreases the amount/ease of learning	44	12%
	Total No of Reasons:	361	
	I dislike it when...		
(S5)	Presentation/explanation by the lecturer is unclear		
	because...		
(R6)	It decreases clarification/understanding	92	41%
(R15)	It decreases the amount/ease of learning	30	13%
(R29)	Learning needs are not satisfied	24	11%
	Total No of Reasons:	227	
	I dislike it when...		
(S46)	There is no variety in classroom presentation/activities		
	because...		
(R19)	It decreases interest	48	30%
(R7)	It decreases concentration	20	12%
	Total No of Reasons:	162	
	I dislike it when...		
(S7)	Class is not disciplined by the lecturer		
	because...		
(R7)	It decreases concentration	80	51%
(R6)	It decreases clarification/understanding	24	15%
	Total No of Reasons:	156	
	I dislike it when...		
(S40)	Content/discussion is not structured by the lecturer		
	because...		
(R6)	It decreases clarification/understanding	31	24%
(R35)	It wastes time	26	
(R29)	Learning needs are not satisfied	21	
	Total No of Reasons:	130	

Table 4 "Dislike" Statements and Associated Reasons

(Sxx): Negative Pole of Statement Category xx

(Rxx): Negative Pole of Reason Category xx

Cat No	Statement and Associated Reasons	No of comments	% of comments
	It helps my learning when...		
S29	Practical application/experiential learning occurs		
	because...		
R6	It increases clarification/understanding	166	32%
R8	It increases consolidation/integration	102	20%
R15	It increases the amount/ease of learning	43	8%
R20	It increases learning by experience/practical applicn	43	8%
	Total No of Reasons:	517	
	It helps my learning when...		
S5	Presentation/explanation by the lecturer is clear		
	because...		
R6	It increases clarification/understanding	167	47%
R15	It increases the amount/ease of learning	38	11%
R29	Learning needs are satisfied	28	8%
	Total No of Reasons:	356	
	It helps my learning when...		
S51	The lecturer supports students' learning		
	because...		
R29	Learning needs are satisfied	41	22%
R6	It increases clarification/understanding	40	22%
	Total No of Reasons:	185	
	It helps my learning when...		
S32	The lecturer asks the class questions		
	because...		
R6	It increases clarification/understanding	43	27%
R33	It promotes thinking	31	19%
	Total No of Reasons:	160	
	It helps my learning when...		
S10	Discussion of content occurs (participants unspecified)		
	because...		
R3	There is access to a variety of perspectives/viewpoints	65	34%
R6	It increases clarification/understanding	36	19%
	Total No of Reasons:	190	

Table 5 "Help learning" Statements and Associated Reasons

Cat No	Statement and Associated Reasons	No of comments	% of comments
	It hinders my learning when...		
(S7)	Class is not disciplined by the lecturer		
	because...		
(R7)	It decreases concentration	126	55%
(R6)	It decreases clarification/understanding	39	17%
	Total No of Reasons:	229	
	It hinders my learning when...		
(S25)	Pacing of presentation by lecturer is not appropriate		
	because...		
(R29)	Learning needs are not satisfied	72	30%
(R6)	It decreases clarification/understanding	66	27%
(R15)	It decreases the amount/ease of learning	38	16%
	Total No of Reasons:	244	
	It hinders my learning when...		
(S5)	Presentation/explanation by the lecturer is unclear		
	because...		
(R6)	It decreases clarification/understanding	55	38%
(R29)	Learning needs are not satisfied	23	16%
	Total No of Reasons:	146	
	It hinders my learning when...		
(S38)	Class size is not appropriate		
	because...		
(R40)	Students cannot ask questions	11	13%
	Total No of Reasons:	82	
	It hinders my learning when...		
(S46)	There is no variety in classroom presentation/activities		
	because...		
(R19)	It decreases interest	17	27%
	Total No of Reasons:	64	

Table 6 "Hinder learning" Statements and Associated Reasons